

PATENT ABSTRACTS OF JAPAN

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(54) TELEVISION SIGNAL RECORDING AND REPRODUCING DEVICE

(57)Abstract:

PURPOSE: To freely select a reproducing mode at the time of reproducing by fixing a recording mode, which does not miss any information, when video- recording high-vision television broadcasting signals.

CONSTITUTION: Video and audio signals from a BS tuner part 11, video and audio signals from a U/V tuner part 12 and converted signals from a MUSE/ NTSC conversion part 13 are guided to a recording/reproducing deck part 14. When the signal of an aspect ratio 16:9 comes, the recording/reproducing deck part 14 performs video recording while setting a video recording mode to a squeeze mode so as not to miss any information. The output of the deck part 14 is passed through a picture mode conversion part 15 so as to freely select the picture mode (such as a non-conversion mode, wide mode or zoom mode) at the time of reproducing.

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CLAIMS

[Claim(s)]

[Claim 1] The television signal record regenerative apparatus characterized by having a means to have a means to record in fixed squeeze mode to a high-definition-television-broadcasting signal, to make process a regenerative signal alternatively by either of the zoom mode, wide mode, and squeeze mode processing sections when reproducing and outputting this recorded signal, and to output.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention is built in a video tape radar (it is described as Following VTR) etc., and relates to a useful television signal record regenerative apparatus.

[0002]

[Description of the Prior Art] In recent years, the system which transmits and receives the Hi-Vision signal which can obtain a screen (aspect ratio 16:9) more nearly oblong than the screen (aspect ratio 4:3) by the television signal of the present method is developed. According to the difference in such a television signal, the cure of the image transcription approach and the playback approach is needed also in VTR. In the conventional VTR system, screen mode is beforehand set up and recorded in consideration of the thing when reproducing. As screen mode, there are the normal mode, squeeze mode, and the wide mode, and in making timed recording, it has set up a niece gap or the mode beforehand. However, now, if treatment is inconvenient and a high-definition-television-broadcasting signal is recorded on videotape in zoom mode, the information on on either side will be missing, and may be recorded on videotape,

and an important part may not be able to be seen later.

[0003]

[Problem(s) to be Solved by the Invention] As described above, the conventional VTR system has the problem that information will be missing and will be recorded on videotape, when must make various selections of the image transcription mode, it is dealt with, and it is easy to generate the upper mistake and a high-definition-television-broadcasting signal is recorded on videotape in zoom mode.

[0004] Then, when recording a high-definition-television-broadcasting signal on videotape, this invention considers image transcription mode without informational lack as immobilization, enables it to choose a playback mode freely at the time of playback, and aims at offering the television signal record regenerative apparatus it enabled it to see in the favorite condition.

[0005]

[Means for Solving the Problem] This invention has a means to record in fixed squeeze mode to a high-definition-television-broadcasting signal, and when reproducing and outputting this recorded signal, it is equipped with a means to make process a regenerative signal alternatively and to output it by either of the zoom mode, wide mode, and squeeze mode processing sections.

[0006]

[Function] With the above-mentioned means, it will be saved without producing informational lack in a record medium, and playback drawing can be obtained in the favorite mode at the time of playback.

[0007]

[Example] Hereafter, the example of this invention is explained with reference to a drawing.

[0008] Drawing 1 is one example of this invention, and 100 is a body of a video tape recorder (VTR), and has the U/V tuner section 12 which can receive the broadcasting satellite tuner section 11 which can receive a satellite broadcasting service signal, UHF, and a VHF band broadcast signal. The video and the sound signal of the broadcasting satellite tuner section 11 are MUSE (Multiple Sub-sampling Encoding), although led to ** / re-deck section 14 which performs record playback. The MUSE signal acquired when a signal is received is led to MUSE / NTSC system transducer 13 which changes an MUSE signal into an NTSC system signal. The NTSC signal obtained in MUSE / method formula translation section 13 of NTSC is led to ** / re-deck section 14. The video and the sound signal from the U/V tuner 12 are also introduced into ** / re-deck section 14. When the picture signal of the aspect ratio 16:9 which comes from a broadcasting satellite tuner 11 is chosen, especially ** / playback deck 14 change to squeeze mode, and performs the image transcription by this mode.

[0009] In addition, when the video and the sound signal which came from the MUSE/NTSC transducer 13 when the video and the sound signal from the U/V tuner

section 12 were chosen are chosen, it is selectable in the image transcription by normal mode, wide mode, and zoom mode. This selection is possible by the user. [0010] It is inputted into the screen mode transducer 15 reproduced in ** / playback deck section 14. This screen mode transducer 15 can choose now no conversion mode, wide mode, and squeeze mode and zoom mode. Thus, the video and the voice output terminal of VTR which were constituted are connected to a television receiver 20.

[0011] Next, the appearance of the image transcription screen of the above-mentioned VTR and the appearance of a playback screen are explained. When the picture signal of an aspect ratio 16:9 is chosen, this system changes to squeeze mode and the description is in the point of performing the image transcription by this mode.

[0012] The screen recorded on videotape in squeeze mode has become like a of drawing 2 . The screen of VTR shall support the aspect ratio 4:3. In reproducing this, when it has the receiving set of an aspect ratio 4:3, if it is made no conversion mode, it will become like b of drawing 2 . Moreover, if it is made the wide mode, it will become like c of drawing 2 . That is, although reproduced as a form where the longitudinal direction was compressed in the case of no conversion mode although the appearance of a circular image was shown in middle of the screen, there is no informational lack. Moreover, although the information on either side will be missing if it reproduces in the wide mode, a circular image is distorted by the perfect circle and can be reproduced that there is nothing. If it reproduces by no conversion mode in having the receiving set of an aspect ratio 16:9, like d of drawing 2 , it is distorted and a normal image can be projected that there is nothing.

[0013] Thus, when recording the image of an aspect ratio 16:9 on videotape, while being able to record on videotape without informational lack and preventing an image transcription mistake by fixing to squeeze mode, the complicated nature at the time of an image transcription is lost.

[0014] Although the MUSE/NTSC transducer 13 can usually acquire the signal changed into the image of an aspect ratio 4:3, when this is recorded on videotape, it is an image transcription screen like e of drawing 2 . When it has the receiving set of an aspect ratio 4:3, if it is made no conversion mode, it will become a screen like f of drawing 2 , and if it is made zoom mode, it will become a screen like g of drawing 2 . Moreover, when it has the receiving set of an aspect ratio 16:9, if playback by zoom mode is performed, it will become like h of drawing 2 .

[0015]

[Effect of the Invention] As explained above, when recording a high-definition-television-broadcasting signal on videotape according to this invention, consider image transcription mode without information lack as immobilization, and it enables it to choose a playback mode freely at the time of playback, and can see in the favorite condition.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The configuration explanatory view showing one example of this invention.

[Drawing 2] The screen explanatory view shown in order to explain the example of this invention of operation.

[Description of Notations]

11 [-- ** / re-deck, 15 / -- Screen mode transducer.] -- The broadcasting satellite tuner section, 12 -- The U/V tuner section, 13 -- A MUSE/NTSC transducer, 14
